

REMARKS

Claims 1-21 are pending in the present application. Claim 1 and Claim 15 were amended. Reconsideration of the claims is respectfully requested.

Applicants filed a Response to Office Action in regard to the above application with the USPTO on August 18, 2004. Comments and remarks set forth in this document are incorporated herein by reference.

I. 35 U.S.C. § 103, Obviousness

The Examiner has rejected claims 1-21 under 35 U.S.C. § 103 as being unpatentable over U. S. Patent No. 6,714,971, to Motoyama et al., in combination with U. S. Patent No. 6,240,460, to Mitsutake et al.. This rejection is respectfully traversed.

II. Response to Rejection of Independent Claims

Applicants' specification, such as at page 2, lines 2-8, clearly states that a central concern of Applicants, in making their invention, was to enable a network administrator to limit the number of pages that a user could print within a specified period of time. Applicants recognized that if this objective could be achieved, congestion associated with network printers, resulting from several users seeking to print at the same time, could be significantly reduced, page 1, lines 15-19. Applicants achieve the purposes and objectives of their invention by providing embodiments in accordance with their respective claims. Claim 1 of the application now reads as follows:

A method for limiting the size of print jobs in a computer network, comprising:
setting a predetermined quota for the number of pages a network user is allowed to print within a specified time period;
receiving a print job request from a network user;
determining if the print job exceeds the predetermined print quota;
preventing the print job from printing if it exceeds the predetermined print quota
and
allowing the print job to print if it does not exceed the predetermined print quota,
so that network congestion is reduced.

In rejecting Claim 1 in the Office Action dated January 12, 2005, the Examiner stated the following:

Regarding claim 1, 8 and 15 Motoyama et al disclose: A method for limiting the size of print jobs in a computer network, comprising: receiving a print job request from a network user (please note column 14 lines 34-38) determining if the print job exceeds the predetermined print quota (please note column 14 lines 43-54 also note column 24 lines 37-57) preventing the print job from printing if it exceeds the predetermined print quota (please note column 24 lines 58-64) and allowing the print job to print if it does not exceed the predetermined print quota (please note column 14 lines 48-56) so that network congestion is reduced (please note column 14 lines 44-50 where the over use of the resources by the user is reported to the administrator who would issue an alert or a warning message to the user thus reducing the congestion of the network resources or bandwidth) However Motoyama et al do not quite disclose: setting a predetermined quota for the number of pages a network user may print within a specified time period. On the other hand Mitsutake et al disclose: setting a predetermined quota for the number of pages a network user may print within a specified time period (please note column 7, lines 33-46 where the number of pages that has to be printed on the specific time limit, also note column 17 lines 23-29).

Therefore it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Motoyama et al's invention according to the teaching of Mitsutake et al where Mitsutake et al in the same field or endeavor teach the way the pages to be printed are limited in to specific time for the purpose of making the bandwidth under control.

Office Action dated January 12, 2005, pp. 2-3.

In regard to Motoyama et al, the Examiner states that Motoyama does not disclose the step of setting a predetermined quota for the number of pages a network user may print within a specified time period. Applicants definitely agree with this statement of the Examiner. By reciting the step of setting a predetermined quota on the user, Claim 1 requires that some entity other than the user determines the number of pages the user can print within a specified time period. The other entity would usefully be the network administrator, referred to above. To further emphasize this teaching of another entity setting the quota, Claim 1 has been amended to substitute the term "is allowed to" for the term "may", although the two terms are generally considered to be equivalent and synonymous.

The basic purpose and teachings of the Mitsutake et al reference are clearly set forth in the Abstract thereof, and at col. 7, lines 5-27, which read as follows:

(57)

ABSTRACT

A data transmission control information acquisition section generates data transmission control information based on control information exchanged between applications of a data transmitter and a data receiver before data transmission is started. A data transfer control section determines a bandwidth to be used by the data transmission, transmission start time, etc. in a shared transmission medium in a unified manner based on the data transmission control information and current bandwidth use conditions, and transmits the thus-determined information to the data transmitter. The data transmitter transmits data to the data receiver via the transmission medium under unified management.

In the constant value control, the target value does not change with time, so that precise control can be performed independently of control information propagation delay Δt .

The following conditions must be satisfied to realize the approach:

1. The bandwidth use conditions of data transmission attempts can be acquired precisely

In conventional general networks, applications involving data transmission are undefined and information of the start time, the end time, the transmission terminal, the reception terminal, the route, use bandwidth change, etc., cannot completely be acquired.

However, focusing attention on such applications as file transfer and a print service among applications involving data transmission, the whole of the data to be transmitted exists at the transmission end before data transmission is started. The data transmission has the following features.

4. Generally, the transmission data amount is known. If the data amount is not known, the data amount is finite and the transmission termination clearly exists. In such many applications, control information of the transmission data amount, etc., is exchanged between the transmission and reception terminals before data transmission is started.

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The above sections of Mitsutake disclose a data transfer control that determines the bandwidth to be used for data transmission, based on certain information. As taught specifically at col. 7, lines 22-27, such information includes the amount of transmission data, and is exchanged between the transmission and reception terminals before data transmission is started. Thus, Mitsutake teaches an arrangement wherein bandwidth can be adapted to anticipated requirements, including the amount of transmission data, by exchanging information pertaining to such requirements prior to transmission.

In the Office Action, the Examiner stated that the Claim 1 step of setting a quota was disclosed in Mitsutake at col. 7, lines 33-46 and col. 17, lines 23-29. Col. 7, lines 28-59 and col. 17, lines 24-30 of Mitsutake, which include the excerpts cited by the

Examiner, are set forth below. It is, of course, well established that a prior art reference must be considered in its entirety, including portions that lead away from the claimed invention. This is clearly stated at MPEP2141.03.

Specific control information examples are given below.

In a standard file transfer protocol (ftp), when data transmission is started, a notification of the data amount of the file to be transferred is sent from the data transmission end to the data reception end.

A control file used by a print spooler of a UNIX operating system contains information such as the number of data files transmitted between printer spools for printing and the data amount of each file.

Further, in specification of ISO 10175: DPA (Document Printing Application), print job details such as the data amount, the number of pages, the data amount and format for each page, the number of output copies, and the output time limit of the document to be printed out can be indicated in the contents of print request information transmitted from a client to a print server at the print-out time.

Thus, the bandwidth use conditions of data transmission can be derived based on such application control information.

1-2. A transmission route can be determined at the point in time at which control information is exchanged between the transmission and reception terminals before the data transmission is started.

1-3. In such an application, transmission data already exists and use bandwidth change is not caused by preparation of the data and can be made constant.

Therefore, if the data transmission applications sharing the same transmission medium are limited to those having the above-mentioned data transmission characteristics, the use bandwidth conditions of all data transmission attempts can be known precisely.

5. Specification of ISO 10175: DPA (Document Printing Application), print job details such as the data amount, the number of pages, the data amount and format for each page, the number of output copies, and the output time limit of the document to be printed out can be indicated in the contents of print request information transmitted from a client to a print server at the print-out time.

The above excerpts of Mitsutake have been carefully studied. However, nowhere do they disclose or suggest setting a quota or any other restriction on a network user of print services. Rather, the above excerpts provide a list of print job details, such as the data amount, number of pages, format, and output time limit of the document to be printed. As emphasized in Mitsutake, at both col. 7, lines 42-43 and col. 17, lines 28-29, these print job details are provided "in the contents of print request information transmitted from a client" (emphasis added), that is, from the print service user. Obviously, the user would not place any quotas or other restrictions on himself, and

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Mitsutake does not suggest otherwise. Thus, it is clear that the list of print job details in the cited excerpts merely indicate details of a data transmission that is intended or anticipated to be made by the client, or user. The print job details do not indicate that any restriction or limitation is being placed on the client or user by another entity, as would be required in the setting of a quota. Accordingly, since all the print job details are supplied by the client, the term "time limit of the document to be printed" simply means the printing time that is anticipated by the client.

The above interpretation of "time limit of the document to be printed" is confirmed by other teachings of Mitsutake. Clearly, such time limit information can be very important in determining required bandwidth, which is the stated purpose of Mitsutake. Thus, at col. 7, lines 44-46, it is taught that bandwidth use conditions can be derived from information such as the print job details provided by the print client.

It will be readily apparent that since neither Mitsutake nor Motoyama teaches or suggests the step of setting a quota for the number of pages a user is allowed to print within a specified time period, Claim 1 distinguishes over any combination of such references.

As is very well known, references may not be combined under 35 U.S.C. § 103 unless the prior art teaches some reason or motivation for making the combination. Moreover, such motivation must come from within the references themselves or from other known prior art, not from Applicants' claims or other teachings. The Motoyama and Mitsutake references cited by the Examiner are both very complex arrangements that are unrelated to and have no need for one another. The references themselves do not provide any reason or motivation to combine them in order to realize Applicants' Claim 1. Accordingly, Applicants consider that one of skill in the art would not be motivated to combine Motoyama and Mitsutake to realize Applicants' Claim 1, particularly in the absence of a citation to a prior art reference teaching such combination, or at least teaching some motivation therefor.

Independent Claims 8 and 15 recite subject matter similar to subject matter of Claim 1, and are each considered to patentably distinguish over the art for the reasons given in support for Claim 1.

III. Response to Rejection of Remaining Claims

Claims 2-7, 9-14 and 16-21 depend from independent Claims 1, 8 and 15, respectively, and are each considered to patentably distinguish over the prior art for the same reasons given in support thereof.

Claim 2 is considered to further distinguish over the prior art in reciting the step of logging the amount of the user's print quota, including both the number of pages and the specified time period that is used. Applicants consider that neither Motoyama nor Mitsutake, nor any combination thereof, shows or suggests this feature of amended Claim 2.

Claims 3, 10 and 17 are each considered to further distinguish over the prior art in reciting the feature of setting a predetermined print quota that further comprises setting separate print quotas for different lengths of time. Applicants consider that neither Motoyama, Mitsutake nor any combination thereof shows or suggests this feature of Applicants' Claims 3, 10 and 17.

Claims 5, 12 and 19 are considered to further distinguish over the art in reciting the feature of setting individual print quotas for each network user. Applicants consider that neither Motoyama, Mitsutake nor any combination thereof shows or suggests this feature of Claims 5, 12 and 19.

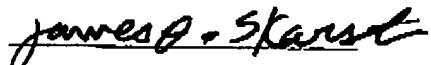
IV. Conclusion

It is respectfully urged that the subject application is patentable over Motoyama et al, Mitsutake and any combination thereof, and is now in condition for allowance. Accordingly, Applicants respectfully request consideration and allowance of the currently pending claims.

The Examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

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Respectfully submitted,



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